

Priv. Doz. Dr. med. Kyoung-Ryul Julian Chun

CCB Frankfurt

Med. Klinik III, Kardiologie

Markuskrankenhaus

Wilhelm Epstein Str. 4

60431 Frankfurt am Main

Germany

New Technique(s) in Ablation

Catheter ablation has been established in the treatment of atrial fibrillation (AF) and other arrhythmias. Very recently, the prospective randomized European EAST trial (rhythm vs. usual care, n=2700 pts) performed in patients with newly detected atrial fibrillation (AF) has demonstrated reduced clinical endpoints in patients randomized to rhythm control. After a median of 5.1 years, 1 of out 5 clinical endpoints could be avoided if rhythm instead of rate control was pursued. In contrast, the worldwide randomized CABANA trial failed to prove a difference comparing catheter ablation and medical treatment. Of note, in CABANA the majority of patients were treated using traditional point by point radiofrequency current (RFC) catheter ablation technology. Importantly, very recently two randomized clinical trials involving new ablation technology have been presented. Both trials demonstrated superiority of "first line" cryoballoon PVI compared to antiarrhythmic drug treatment in paroxysmal AF patients if randomized to catheter ablation. Therefore, the development of novel ablation techniques and energy sources is important to move towards durable ablation lesions along with faster and safer procedures and predictable patient outcome. This presentation will discuss recent progress in RFC ablation technology including safety and efficacy experience of high power short duration. Moreover, novel single shot devices and clinical data regarding contemporary balloon devices will be presented. The background and clinical use of the very promising energy source of electroporation/pulsed field ablation will be introduced and its potential role of in tomorrows field of catheter ablation discussed.